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IN RE:)
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UNITED CITIES GAS COMPANY,)
a Division of ATMOS ENERGY) Consolidated Docket Nos 01-00704 and
CORPORATION INCENTIVE) 02-00850
PLAN (IPA) AUDIT)
)
UNITED CITIES GAS COMPANY,)
a Division of ATMOS ENERGY)
CORPORATION, PETITION TO)
AMEND THE PERFORMANCE)
BASED RATEMAKING)
MECHANISM RIDER)

REBUTTAL TESTIMONY OF FRANK H. CREAMER

1 Q Please state your name, place of employment and title.

2 A My name is Frank Creamer. I am a management consultant specializing in business
3 performance, and utility regulatory matters for gas and electric utilities through my own
4 company, Barrington Associates Inc., located at 730 Walnut Road, Barrington, Illinois,
5 60010. I am Director of the company

6 Q. Are the same Frank Creamer that provided direct testimony in this docket?

7 A: Yes

8 Q: What is the purpose of your rebuttal testimony?

9 A: The purpose of my rebuttal testimony is to respond to portions of the direct
10 testimony of Consumer Advocate and Protection Division ("CAPD") witnesses Dan
11 McCormac and Dr. Stephen Brown.

12 Q. On page 10 of his direct testimony, Dr Brown asserts that "no maximum rate can be
13 a part of the PBR" because the PBR can properly be implemented only through a market

14 index or average with some purchases both above and below Do you agree with Dr.
15 Brown's assertion?

16 A: No. Dr. Brown is incorrectly applying the market index design principles for the gas
17 commodity marketplace to the transportation pipeline marketplace. As will be shown in the
18 following, these two marketplaces are entirely different I noted in prior testimony that an
19 index serves as a proxy for the marketplace and sets a pre-agreed standard of performance
20 against which the company's performance is measured and benefits subsequently calculated.
21 To be effective, therefore, the index must reflect the actual marketplace that it is attempting
22 to replicate, not some other marketplace with a totally different structure

23 Since the gas commodity marketplace contains a population of multiple transactions each
24 with different paired values, without price ceilings or floors, the market proxy for that
25 marketplace would be the numerical average of the multiple market transactions reported
26 during the measurement window. Therefore, some of these market transactions, by
27 definition, would be above the resulting market index and some of the market transactions
28 would below the market index. Atmos' gas commodity purchases reflect this marketplace
29 with gas commodity purchase transactions both above the market index and some
30 transactions below the market index

31 Since the transportation marketplace contains only single point-in-time pricing information
32 for a transaction with a population of "1", has a price ceiling (e.g. maximum FERC rate) and
33 contains unique contract terms and conditions, the proxy for this marketplace certainly
34 cannot include prices higher than "seen" in the marketplace nor should it include a
35 numerical average of all transactions in the marketplace.

36 From the above, the transportation pipeline marketplace is much different than the
37 commodity purchase marketplace and accordingly, the market index design principles would
38 be expected to be different for each marketplace. The absence of "purchases" above the
39 market index average for the transportation marketplace, as noted by Dr. Brown, is
40 irrelevant and does not preclude determining a proper proxy for the transportation
41 marketplace as outlined above.

42 Q. On pages 12-14 of his direct testimony, Dr. Brown argues, citing portions of your
43 testimony in the original PBR docket (Docket No. 97-01364), that transportation savings
44 should not be included in the PBR because there is no risk of penalty or loss. Would you
45 address this testimony?

46 A: Yes. First, Dr. Brown is incorrect in stating that Atmos does not incur any risk in
47 negotiating transportation discounts. Atmos dedicates scarce and limited resources, both
48 human and physical assets, to obtaining these discounts. To the extent that Atmos is
49 unsuccessful in negotiating a discount, Atmos incurs a lost opportunity cost relative to the
50 utilization of those assets. In devoting substantial assets to negotiating the discounts, Atmos
51 is risking losing any return on its investment should the negotiations be unsuccessful

52 That point aside, Dr. Brown mischaracterizes my prior testimony. The testimony that Dr.
53 Brown cites to is in reference to *gas commodity purchasing activities* of Atmos and reflects
54 the uniqueness of the gas commodity marketplace. It does not apply to the transportation
55 pipeline market. As noted above, since the gas commodity marketplace is entirely different
56 from the transportation pipeline marketplace, a different market index and standard of
57 performance must be determined for each marketplace

58 However, what is common between the two marketplaces is that the PBR program must
59 provide incentives for Atmos to engage in innovative sourcing behaviors (both commodity
60 and transportation) to "beat the market" and maximize cost savings opportunities that are
61 consistent with the TRA's guiding principle when implementing the PBR in 1995 - "to look
62 to incentive programs and more streamlined regulation to improve efficiency and hold down
63 costs to consumers." Consequently, the crucial component of the PBR is not whether the
64 transportation marketplace has pricing penalties that are similar to the pricing penalties that
65 exist in the commodity marketplace, but rather does the PBR mechanism provide for a pre-
66 agreed upon standard of performance that reflects each individual and unique marketplace
67 against which Atmos's sourcing performance (both commodity and transportation) can be
68 determined.

69 Q. On pages 14-15 of his direct testimony, Dr. Brown claims that "the Company wants
70 to jettison these indices and be judged by its own historical performance." Do you agree?

71 A: No. I will answer the question in two parts. First, as noted above, Dr. Brown
72 misapplies the design principles and standards from the gas commodity purchase
73 marketplace to the transportation pipeline marketplace. Since the transportation pipeline
74 marketplace is a completely different marketplace from the gas commodity marketplace, a
75 different transportation index is warranted. Atmos has asserted all along in this docket that
76 the only relevant and meaningful proxy for the pipeline transportation marketplace is the
77 maximum FERC rate.

78 Second, on page 27, line 17 of his testimony, Dr. Brown mischaracterizes Atmos's proposal
79 as one that is attempting to measure its pipeline transportation sourcing performance based
80 on the company's historical performance. Dr. Brown is incorrect. Atmos is not proposing
81 that it be judged on its own historical performance. To the contrary, Atmos is proposing that
82 its performance be measured prospectively against the maximum FERC rate in effect at that
83 time. Atmos is proposing that the maximum FERC rate serve as the standard of
84 performance, not because its transportation contracts have historically been set at maximum
85 FERC rate, but because the maximum FERC rate is indeed the market-clearing price for the
86 majority of the firm transportation contracts industry-wide and more importantly the basis
87 for the negotiations for any future discounts.

88 As noted in my direct testimony, lines 206-301, the maximum FERC rates do serve as the
89 indicator of prices achieved in the market. For instance:

- 90 a) Atmos negotiates discounts off of FERC approved rates, not off
91 commodity-based indices;
- 92 b) The maximum FERC rate has been accepted by other state public utility
93 commissions as the true market indicator of long-term, firm
94 transportation costs; and
- 95 c) The maximum FERC rate would serve as the benchmark for any PGA
96 audit or prudence review of Atmos' purchases. If, for example, the
97 downstream, firm transportation costs were excluded in the PBR, the
98 TRA would be required to establish the basis for comparing actual firm

99 transportation costs to a standard of prudence, e.g. approved, maximum
100 FERC rates.

102 Q: On page 15 of his direct testimony, Dr. Brown argues that Atmos has misinterpreted
103 the PBR's meaning of "avoided transportation costs." Would you address this testimony?

104 A: Yes. Dr. Brown concluded that the "PBR's intent is to remove the effects of the
105 transportation price from the gas commodity prices" (lines 20-27, page 15). I respectfully
106 disagree with this conclusion, as follows:

107 a) The intent of the PBR program, as defined by the TRA in 1995, is to
108 *"streamline regulation to improve efficiency and hold down costs to*
109 *consumers"* (emphasis added),

110 b) The PBR mechanism must be constructed to provide incentives to Atmos
111 to beat the "market" regarding its sourcing decisions (both commodity
112 and transportation) in order to maximize all cost reduction opportunities;
113 and

114 c) The current PBR mechanism included the effects of pipeline
115 transportation costs, not excluded them as Dr. Brown stated

116 The Authority's definition of total gas cost in the Phase Two Order specifically recognizes
117 that gas cost includes a transportation cost component. The Authority stated that the total
118 cost of the gas includes the commodity cost *and the transportation cost to move the gas*
119 *from its source to the city gate.*¹ Contrary to Dr. Brown's testimony, the intent of the PBR
120 was not to exclude transportation costs, but rather to account for them.

121 Q On page 7 of his direct testimony, Mr. McCormac states that the intent of the current
122 PBR's transportation cost adjuster for avoided transportation cost is "to remove the
123 transportation cost variable from the equation and focus specifically on the cost of natural
124 gas excluding the effects of transportation." Would you address this testimony?

¹ Phase Two Order p. 18 fn. 46 (emphasis added)

125 A: Yes. Mr. McCormac's testimony reflects the CAPD's position in this case that the
126 commodity indices should be adjusted through the transportation cost adjustor only when
127 the gas is bought directly at the city gate, thus avoiding almost 100% of the transportation
128 costs. This is inconsistent with both the intent and previous application of this mechanism
129 within the PBR plan.

130 The NORA contract is an example how the transportation cost adjustor has previously been
131 and should be applied. As more fully explained in my direct testimony, lines 356-407,
132 purchases made under the NORA contract avoid or *reduce transportation costs* (emphasis
133 added) on Atmos' pipelines, just as the negotiated discounts at issue in this docket also
134 reduce transportation costs. The NORA transportation cost savings was calculated based
135 using the approved FERC maximum rate as the standard of performance, just as Atmos
136 proposes for the pipeline transportation discounts. Consequently, the reduced pipeline
137 transportation cost in the NORA example and the transportation cost savings resulting from
138 the negotiated discounts represent the same thing – they both reflect a cost savings for the
139 pipeline transportation cost component that is treated as avoided or reduced transportation
140 costs under the transportation cost adjustor in the PBR.

141 Q: On page 5 of his direct testimony, Mr. McCormac argues that including
142 transportation savings in the PBR is inconsistent with the TRA's recent ruling permitting
143 costs stemming from uncollectible accounts to be recovered under the PGA rule. Would
144 you address this testimony?

145 A: Yes. I have reviewed filings in the uncollectibles case (Docket No. 03-00209), and I
146 find no inconsistency between the ruling in that case and Atmos' positions in this docket. In
147 his direct testimony, Mr. McCormac appears to argue that the decision in the uncollectibles
148 case shifted additional costs to the consumer, and that that shifting of additional cost to the
149 consumer somehow contradicts Atmos' position in this case that it should share in the
150 additional cost savings it has procured. Mr. McCormac's assertions are simply inaccurate.
151 Atmos has, since the enactment of the PGA rule in the 1970s, been entitled to recover 100%
152 of its gas costs. Atmos is also entitled to share in costs savings under the PBR plan. These
153 are not new principles. The uncollectibles case simply clarified that the gas costs portions of
154 uncollectible accounts are indeed gas costs, and therefore can be recovered under the PGA.

155 rule. It did not represent a fundamental change in ratemaking policy, and the ruling is in no
156 way inconsistent with the inclusion of transportation savings in the PBR.

157 The ruling in the uncollectibles case actually supports Atmos' position in this docket. In the
158 uncollectibles gas, the TRA ruled that, despite the fact that uncollectible accounts were not
159 specifically mentioned in the PGA rule, recovery of those costs is consistent with the intent
160 and scope of the PGA rule, which is to ensure that Atmos recovers 100% of its gas costs,
161 and does not over or under collect those costs. The uncollectibles ruling is an example of
162 the TRA rejecting the CAPD's hyper-technical elevation of form over substance in favor of
163 a more flexible approach which focuses on the overall intent and scope of the rule, not
164 merely its specific language. In this case, it is true that negotiated transportation discounts
165 are not specifically mentioned in the PBR plan, because such discounts did not exist when
166 the PBR plan was created. However, it is clear that allowing Atmos to share in the savings
167 generated from those discounts is consistent with the intent and scope of the original PBR
168 plan, which is to span the entire spectrum of all gas procurement, storage, and capacity
169 activities and provide Atmos with an incentive to find innovative ways to reduce all costs of
170 purchasing, delivering, and storing gas to the end consumer, including transportation costs.
171 (See Trans. of March 26, 1998 Hearing, vol. 1 p. 61, lines 6-9).

172 Q: On page 6 of his direct testimony, Mr. McCormac argues that the proposed TIF tariff
173 should not be approved because of "recent events in the natural gas business." Would you
174 address this testimony?

175 A: Yes. In Mr. McCormac's testimony, he makes the blanket assertion that Atmos'
176 positions in this docket should not prevail because of unspecified events in the industry as a
177 whole. Although Mr. McCormac does not elaborate in his testimony as to the basis for that
178 assertion, I have reviewed Mr. McCormac's discovery responses on this issue. After
179 reviewing both the testimony and the discovery responses, I am unable to identify the
180 relevance of Mr. McCormac's assertions regarding the industry to the issue at hand -
181 whether the maximum FERC rate is an appropriate benchmark to measure Atmos'
182 performance in procuring gas transportation. Mr. McCormac provided several articles that
183 referred to potential and alleged abuses in reporting *commodity purchases* (emphasis added)
184 to the Inside FERC gas commodity index. The articles do not even discuss any potential for

manipulation in the posted maximum FERC transportation rates, which unlike the commodity indexes, are set through the FERC ratemaking process and not through compilation of voluntary reporting from companies within the industry. The bottom line is that, even if suggestions about possible manipulations of the commodity indexes turn out to be justified, it has no effect whatsoever on the validity of the maximum FERC rate as a standard of performance in Atmos' PBR plan

If instead, Mr. McCormac is questioning the reliability of the gas commodity market indices, not the maximum pipeline transportation FERC rate, I would respond that the gas commodity component of the PBR was intentionally designed to rely on the averaging of three indices with a deadband and an earnings cap that minimize the impact of any data or market anomalies. Furthermore, to Mr. McCormac's point, the TIF factor proposed by Atmos would actually facilitate any modifications, additions, and/or deletions of the gas commodity market indices should such modifications ever become necessary, without affecting the transportation component. As such, Mr. McCormac's testimony provides a further reason the TIF factor is a better and more straightforward way of addressing the transportation costs within the PBR.

Q. On page 9 of his direct testimony, Mr. McCormac claims that Atmos has admitted it is not relying on any market benchmarks or industry standards in proposing the TIF amendment. Do you agree?

A: No. Mr. McCormac has mischaracterized Atmos' response to CAPD interrogatory Item 9, a discovery request limited to the previous settlement proposed in this docket. Atmos' response clearly stated that the company did not rely upon any market benchmarks or industry standards "*in formulating the proposed settlement or submitting the settlement for approval.*" (emphasis added). The response goes on to state that the TIF factor Atmos has proposed utilizes the maximum FERC rate as the market benchmark or industry standard. Atmos has consistently maintained throughout this docket that the appropriate market benchmark or industry standard to judge the company's performance in obtaining transportation services is the maximum FERC rate. The discovery response cited by Mr McCormac in no way contradicts that position.

214 Q: On page 6 of his direct testimony, Mr. McCormac argues that the fact that Atmos
215 sometimes deals with affiliate companies presents "another layer of concern." Would you
216 address this testimony?

217 A Yes. There is no connection between Atmos' relationship with its affiliate and the
218 issue in the docket - whether transportation cost savings should be included within the PBR
219 Mr McCormac does not even attempt to make such a connection in his testimony In fact,
220 affiliate arrangements are becoming more common throughout the industry, and are gaining
221 acceptance within the regulatory environment due in part to the fact that dealing with an
222 affiliate can be a benefit, not a detriment.

223 As concluded in a recent report that I consulted on and which was subsequently submitted to
224 the Kentucky Public Service Commission (attached as Exhibit 1 to this rebuttal testimony),
225 an affiliate, as opposed to a third-party provider, that serves as asset manager can actually
226 decrease the degree of counter-party risks when compared to a third-party asset manager.
227 Due to the alignment of shared goals and responsibilities, the affiliate's risk profile mirrors
228 the parent corporation's and, in turn, Atmos Energy's This is particularly important in
229 today's financial environment, given the contractual defaults, both financial and operational,
230 of independent, third-party marketers and asset managers. Non-affiliates can be expected to
231 have different short and long-term goals, which may not be aligned with the best interests of
232 the ratepayer and distribution company. Therefore, instead of raising "another layer of
233 concern" as suggested by Mr. McCormac, the affiliate company relationship can actually be
234 a benefit.

235 Q: Does this conclude your testimony?

236 A: Yes.

237

238

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I hereby certify that a true and correct copy of the foregoing has been served via U.S. Mail, postage prepaid, upon the following this the 5th day of October, 2004:

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**Briefing Report to the
Kentucky Public Service Commission**

**Western Kentucky's
Gas Supply Business Model Briefing Report**

April 3, 2003

Barrington Associates
Barrington, IL 60010



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I. INTRODUCTION

In its Audit of Five Major Kentucky Gas Local Distribution Companies ("Audit") dated November 22, 2002, Liberty Consulting Group ("Liberty") found that Western Kentucky Gas ("WKG") should:

..work with the Commission to help it understand the risks in the parent company's business model, and how the Company is dealing with those risks.¹

WKG's gas supply business model relies upon Woodward Marketing ("Woodward"), an affiliate and wholly owned subsidiary of WKG's parent, Atmos Energy, to provide to WKG at its city gate sufficient gas to meet WKG's requirements

WKG concurs with Liberty that this process will aid the Commission's understanding of WKG's gas supply model, e.g., the use of an asset manager to provide gas to its city gate, by demonstrating the benefits to Kentucky's ratepayers of such a model, identifying the associated potential risks, and documenting WKG's plans to mitigate these risks.

To support the above objectives, this report is the first in a series of briefings to the Commission on this subject. It provides an introduction to and description of the asset management model, identifies the principal risks of that model, and describes the measures that WKG is taking to limit exposure to those risks with regards to

- Counter-party risks²
- Supplier failure risks

Subsequent reports as directed by the Commission, perhaps at six-month intervals, would supplement this first report and provide updates on principal indicators of the liquidity of city-gate markets (i.e., the number of viable competitors and their financial strength).

This report is organized into four chapters

CHAPTER I – INTRODUCTION

Introduces the context and purpose of the briefing report

¹ Liberty Consulting Group Audit of Five Major Kentucky Gas Local Distribution Companies, dtd 11/22/02, pg. III E 6 5, Recommendation #1

² Counter-party risk is the risk of loss from nonperformance by financial counter-parties to a contract

CHAPTER II – OVERVIEW OF GAS SUPPLY ASSET MANAGEMENT MODEL

Provides a summary discussion of asset management models, including types of models, general roles, responsibilities, risk profiles, and typical risk mitigation strategies. The intent of this chapter is to serve as a primer of the basic, generic attributes of an asset management model. It is designed to be helpful to the less experienced reader in gas supply asset management.

CHAPTER III – WESTERN / WOODWARD GAS SUPPLY ASSET MANAGEMENT MODEL

Documents the features and attributes of WKG's single-source supplier model, Woodward's relationship to Atmos and WKG, assets deployed or utilized in this model/arrangement, and the benefits delivered to the ratepayers.

CHAPTER IV – WESTERN'S RISKS AND RISK MITIGATION

Identifies the principal risks of an asset manager and the measures that WKG is taking to limit exposure to these risks.

CHAPTER V – SUMMARY

Summarizes the model, its benefits, potential risks, and risk mitigation plans.

II. OVERVIEW OF GAS SUPPLY ASSET MANAGEMENT MODEL

A. Introduction

This chapter is intended to serve as a primer for the basic attributes of the asset management model. Those already familiar with that model may want to skim this chapter or proceed directly to Chapter III.

B. Objectives of Local Distribution Companies (LDCs)

With respect to gas supply, an LDC's objective, in the broadest terms, is to supply gas to its customers reliably and at the lowest reasonable cost, regardless of weather or changes in customer demand. To meet the needs of its customers, an LDC must acquire gas, ship the gas to its city gates, and distribute the gas to its customers.

Acquisition of gas is typically done through commodity contracts with producers; delivery is taken in the production area, typically the Gulf states or offshore for western Kentucky and the Atmos companies. The LDC then arranges for pipeline transportation through contracts with pipeline companies and for other products and services such as underground storage, liquefied natural gas, or propane to match supply with demand.

C. Classes of Assets

The contracts for commodity, pipeline transportation, storage services, and any LDC peaking facilities are referred to as assets, and each type has its own contractual and operational parameters. Each type of asset is defined below with an explanation of some of its more significant operational and contractual parameters.

- **Commodity** is the natural gas, typically purchased "at the wellhead" (which generally means in the production area) from a producer under terms of a contract that usually includes a price, tied to a major index (e.g., NYMEX), and specified minimum and maximum daily quantities. The contract may also allow for seasonal variation.
- **Pipeline capacity** represents an allocation of the space on a pipeline that typically brings gas from the production area to the city gate. Most pipelines cross state lines and therefore fall under the jurisdiction of the Federal Energy Regulatory Commission (FERC). Pipelines' rates and terms of service are governed by FERC-approved tariffs. Most FERC-approved tariffs specify the so-called "straight fixed-variable" rate design, in which

most of the rate (90% or more) is in a demand charge, with the remainder in a commodity charge.

- ***Underground storage fields*** are typically depleted gas or oil wells or man-made salt caverns in which gas is stored when supply exceeds demand. Because wells typically produce at a relatively constant rate year round while consumption is heavily weighted toward the heating season, the excess gas is injected into storage fields and caverns at times of relatively low demand and withdrawn at times of relatively high demand. Historically, gas was put into storage (“injected”) during the non-heating season and withdrawn from storage during the heating season (November through March). With the increase in use of gas for electric generation and use of salt cavern storage, which allows for much more rapid injection and withdrawal of gas, the historical patterns are currently experiencing some change

Most storage fields are owned and operated by the pipeline companies and fall under FERC regulation similar to pipelines. However, as is the case with WKG, some are located within the LDC’s service area and are owned and operated by the LDC.

- ***Peaking plants***, including liquefied natural gas (LNG) and liquid petroleum gas (LPG, aka propane), are frequently used by LDCs for the few coldest days of the year, often referred to as “needle peaks.” LNG is natural gas that has been cooled and liquefied to take advantage of the difference in volume between the gaseous and liquid states of natural gas (approximately 600 to 1). The plants are usually located on the LDCs’ systems, although a few in the United States actually import LNG and vaporize it at the import terminals. LPG is a by-product of the petroleum processing industry and is transported via pipeline or by truck. Similarly, LPG is most commonly vaporized in plants in the LDCs’ systems. Both LNG and LPG are far more expensive than most other sources of gas on a per-unit basis, but they are often economical when a source is needed for only a few days a year.
- ***Interruptible service*** is an optional service taken by some LDC customers, typically those with dual-fuel capability. During peak times, an LDC is permitted to stop serving interruptible customers, either because there is insufficient capacity in the LDC’s system or, in some cases (i.e., interruptible contracts with buyback provisions), because the LDC is permitted to divert the interruptible customers’ gas to use for its firm (or noninterruptible) customers. Interruptible customers receive a significant discount from firm service and may be compensated handsomely when their gas is diverted.

To meet the “lowest reasonable cost” criterion, an LDC must optimize efficiency both within a class of assets as well as across the various classes of assets

D. Matching Supply with Demand

An LDC assembles a portfolio of assets to meet its worst-case scenario, a design day (coldest day) and a design winter (coldest winter) based on forecast load (i.e., demand) for the coming year and criteria such as coldest day and coldest winter in the last 30 years. An LDC attempts to “stack up” the assets to meet the duration of the need. For example, for year-round load (“base load”), an LDC typically uses pipeline capacity; for average winter heating load, it uses underground storage; and for the coldest days, it uses LNG or LPG. Depending on various factors, an LDC may also add a reserve margin to its peak day and peak winter requirements. Generally speaking, the farther an LDC is from production areas, the fewer the serving pipelines, and the lower the number of peaking facilities available, the more conservative an LDC will be in designing its portfolio.

Given the vagaries of the weather, as well as the possibility of changing customer loads for other reasons (e.g., changes in industrial output), even the best run, most experienced LDC will have some level of unused assets most of the time. Thus, those assets are available for other uses, subject of course to the requirement that they be readily available on short notice should they be needed (e.g., if the weather suddenly and unexpectedly turns significantly colder). So the LDC attempts to “remarket” its unused assets to extract value that might otherwise be lost.

E. Extracting Value from Unused Assets

There are several types of opportunities for remarketing assets. Capacity and storage may be resold (“released”) consistent with FERC requirements:

- Long-term releases, defined as one year or longer, must be posted on the pipeline’s electronic bulletin board (EBB, required of each pipeline by FERC) and sold at auction
- Short-term releases, defined as under one year, are not required to be posted but may be re-leased through prearranged deals, so long as the release is posted on the EBB after the fact. As recently as 1999, FERC limited the price of the release to the maximum tariff rate, but today the price may match the prevailing market rate

Most LDCs or their designees employ remarketing and trading described above as a normal part of running the day-to-day business

Because LDCs' annual payments for assets and use of assets may represent some 25% of its annual cost of doing business (e.g., approximately \$20 million per year for WKG), it is clear that any revenues received from remarketing unused assets may serve to reduce customer bills. Given this situation, several factors affect an LDC's ability to maximize the value of its unused assets:

- Sufficient staff to perform the function,
- Staff experienced in remarketing assets,
- The type and quantity of assets affected,
- Access to other assets that might be pooled with its own,
- The geographic "reach" of the gas supply staff (Are they knowledgeable about and do they have access to information about gas markets and trading centers on regional and national levels beyond their own city gates?)

For many LDCs, arguably most, it makes sense to turn to an asset manager to perform these functions so as to maximize the value of unused or underutilized assets.

F. The Role of the Asset Manager

An asset manager brings economies of scope and scale to the functions previously discussed. Typically, an asset manager will have a dedicated staff well versed in the operations of regional and national gas markets, the characteristics of the various pipelines and storage fields, and the effects of various weather patterns on supply and costs. The asset manager will likely have more sophisticated modeling tools and access to more information than an individual LDC. Because an asset management firm typically works on behalf of a number of LDCs and other customers, it has access to a large pool of assets, which may be optimized both within its client base as well as outside. An asset manager will have access to a broader market than an individual LDC and thus may benefit from more diverse weather patterns. Further, to our knowledge, most asset managers impose no additional costs on the LDCs, for they are compensated based upon sharing the incremental revenues generated.

Asset managers typically provide services to LDCs in one of three ways:³

- **Advisory** -- employees of the asset manager consult with and advise the LDC, provide information and research, run models, and perform other

³ Typical examples for illustrative purposes; hybrid models and variations on these themes are very common

such tasks. The LDC continues to perform all the functions of the gas supply business, making all decisions and maintaining full title to and control of its assets.

- **Agent** -- the asset manager is designated as agent of the LDC and empowered to make decisions and act on behalf of the LDC subject to the terms of a contract. However, the LDC reviews parameters and retains decision-making powers as specified in the contract. Title to assets remains in the LDC's name.
- **Wholesale supplier** -- the asset manager holds and controls assets (e.g., capacity and commodity contracts are in the asset manager's name), and the contract between the LDC and the asset manager specifies that the asset manager must provide for the LDC's full requirements. The LDC exercises oversight rights over the asset manager.

A number of companies offer asset management services today. A sampling includes Coral (a subsidiary of Shell), Entergy-Koch Trading (a joint venture between Entergy and Koch), Cinergy Marketing and Trading (a subsidiary of Cinergy and a utility affiliate), ProLiance (a subsidiary of Vectren and Citizens and a utility affiliate), and Woodward (the Atmos and WKG affiliate). In the past, Dynegy, El Paso, Enron, MidConn, and Mirant also offered asset management services.

A sampling of LDCs who currently use asset managers, in addition to the Atmos companies, include the Vectren companies (3), Citizens Gas and Coke, Niagara Mohawk, the KeySpan companies (4), Providence Gas, Rochester Gas and Electric, New York State Electric and Gas, the Cinergy companies, and the Sempra companies.

Asset managers are compensated in a variety of ways:

- The LDC may pay the asset manager a management fee.
- Costs incurred by the asset manager may be reimbursed dollar for dollar.
- Revenues generated by the asset manager may be shared according to agreed-upon percentages or one party may get a guaranteed amount, beyond which revenues are shared.

Other mechanisms or combinations of these approaches may be used.

G. A Discussion of Risk

Inherent in the business of running an LDC are certain risks: for example, security of supply and price fluctuation. These risks typically have an inverse relationship. The more secure the supply, the higher the price, and vice versa. For example, spot gas at a city gate may be extremely cheap during the summer months, but it may be unavailable at any price during a peak winter day. Having an experienced, financially stable asset manager can manage such risks.

However, the asset manager itself poses certain risks as well, known as counter-party risks:

- An asset manager may sell an LDC's assets and replace them with a higher cost supply, passing the higher cost on to the LDC's customers.
- A manager may fail to supply gas when needed by the LDC, for any number of reasons.
- A manager may pull out of the business voluntarily.
- A manager may be unable to perform due to financial instability or bankruptcy.

An LDC using or contemplating using an asset manager must carefully consider the potential risks and take steps to mitigate them. The types of questions an LDC should ask of an asset management firm are:

- Are the interests of the LDC and the asset manager aligned?
- Does the compensation mechanism motivate the proper behavior to achieve the desired outcomes?
- What is the financial condition of the asset manager?
- Does the asset manager have sufficient, experienced staff?
- Does the asset manager have a sufficient client base to create economies of scope and scale?
- Does the asset manager have a good track record?
- How will the LDC oversee the asset manager's performance?
- In a worst-case scenario, what will happen if the asset manager voluntarily or involuntarily stops serving the LDC?

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The following chapters explain the specifics of the WKG asset management arrangement and answer questions related to it. We believe that the relationship demonstrates convincingly that WKG's customers are better off under the agreement and benefit from lower costs and a reduced risk profile made possible by it.

III. WESTERN / WOODWARD GAS SUPPLY ASSET MANAGEMENT MODEL

WKG's current gas supply function is indeed a departure from past practices. This departure reflects WKG's ongoing business objective of reducing costs and increasing quality throughout its organization.

This approach to gas supply is in direct response to the rewards and penalties inherent in the performance-based rate (PBR) mechanism introduced in 1997 to develop a prudent and beneficial gas supply capability that would assure WKG's continued long-term success in securing supplies delivered at the city gate. WKG initiated a program that integrated the two major components of any gas-supply function – the commodity itself and the transportation of that commodity to the city gate.

In this program, Woodward, or any other similarly qualified asset manager, competes with other asset managers not only for the right to provide supply but also for the right to serve as agent and manager of WKG's pipeline and storage assets.

A. Business Background

The parent of WKG is Atmos Energy Corporation ("Atmos"). Atmos, headquartered in Dallas, Texas, and its subsidiaries are engaged in the natural gas utility business as well as certain related, non-regulated businesses. Atmos distributes natural gas through sales and transportation arrangements to about 14 million residential, commercial, public authority, and industrial customers through its five regulated utility divisions that cover eleven service areas in:

- Colorado
- Georgia
- Illinois
- Iowa
- Kansas
- Kentucky
- Louisiana
- Missouri
- Tennessee
- Texas
- Virginia

Atmos also provides natural gas storage services and owns or holds interest in natural gas storage fields in Kansas, Kentucky, Tennessee, and Louisiana to supplement natural gas supplies to customers in Kansas, Kentucky, Tennessee, Louisiana, and other states. In

addition, Atmos provides energy management and gas marketing services to industrial customers, municipalities, and other LDCs. Finally, Atmos provides electrical power generation to meet peak load demands for municipalities and industrial customers.

Natural Gas Marketing Activities

Atmos conducts natural gas marketing activities through Atmos Energy Marketing, LLC, which includes two wholly owned subsidiaries, Woodward Marketing and Trans Louisiana Industrial Gas, that market natural gas primarily to commercial customers in Louisiana.

The principal business of Atmos Energy Marketing is the overall management of natural gas requirements for municipalities, local gas utility companies, and industrial customers located primarily in the Southeast and Midwest. This business involves sales of natural gas and management of storage and transportation contracts for its customers under multiyear contracts. More specifically, energy services include contract negotiation and administration, load forecasting, storage acquisition, natural gas purchase and delivery, and capacity utilization strategies.

Currently, Atmos Energy Marketing serves a total of 101 municipal customers and 641 industrial customers.⁴ These customers are in addition to the supplies provided to Atmos's own regulated operations, of which a portion of the natural gas requirements are provided on a competitive bid basis. In meeting the natural gas requirements of municipalities and local utilities, Atmos Energy Marketing uses financial instruments, hedges, and swaps to manage price and risk.

B. Woodward/WKG Business Model

WKG's principal objective in its gas-supply function is to obtain and deliver high-quality service at the lowest possible cost. To achieve this objective, WKG identifies its customers' requirements at the city gate and then manages its distribution system to ensure safe and reliable deliveries from its city gates to its customers.

In defining the asset manager role, WKG identified several key provisions in order to ensure that WKG obtains and delivers to its customers high-quality service at the lowest possible cost:

- The asset management contract must be competitively bid in order to minimize price.

⁴ As of September 30, 2002, Atmos's fiscal year end.

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- Volume discounts for WKG's firm annual system supply of about 26 Bcf, including 8.3 Bcf of pipeline and on-system storage, must be maximized
- A comprehensive gas supply contract must encourage bids from producers without supply reservation fees
- The contract must be expressed in price terms that mirror the pre-established benchmarks under WKG's PBR mechanism for the full requirements

To manage its gas-supply function, WKG contracted, in competitive bidding, with Woodward, an asset manager and WKG's agent for the management of all its transportation and storage contracts. Woodward secures, under its own name, the gas supply required by WKG's sales-service customers (as well as for customers in similar arrangements in Kansas, Missouri, Louisiana, Tennessee, Virginia, and Georgia), including quantities injected into WKG storage.

Woodward in turn manages and uses these assets, together with its own assets, to deliver the gas commodity to WKG's city gates. Woodward also nominates on WKG's in-system storage facilities. Woodward provides for all WKG's requirements at WKG's city gates, priced at a discount to the composite price index used in WKG's PBR mechanism.

As noted in the Liberty Audit,

WKG "has consistently resulted in gas costs and non-gas costs that are among the lowest in Kentucky and the nation."⁵

This level of performance was obtained by combining WKG's full firm gas commodity requirements with all of WKG's transportation and storage contracts. Therefore, the asset manager was afforded the opportunity to supply WKG's firm market plus the additional opportunity to leverage WKG's transportation capacity and storage assets beyond the actual supply requirements of that market. The transportation capacity and storage asset capabilities, when combined with Woodward's other asset management arrangements and its own assets, provide Woodward with significantly greater operating and sourcing flexibility than would be available to WKG if it were to resume acquiring gas supplies for its customer use only.

⁵ Liberty Consulting Group Audit of Five Major Kentucky Gas Local Distribution Companies, dtd 11/22/02, pg. III E.6.4

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Additionally, WKG's asset management arrangement excludes any supply reservation fees. Historically, WKG had paid for call rights up to certain contract quantities to guarantee supply during peak periods.

Despite the breadth and supplier flexibility inherent in a full-requirements contract, WKG retained by contract full operational control through mandated asset manager compliance with a prescribed seasonal storage and operation plan and with nonperformance penalties and remedies, as documented in the Audit.⁶

⁶ Liberty Consulting Group Audit of Five Major Kentucky Gas Local Distribution Companies, dtd 11/22/02, pg III.E.6 4

IV. WESTERN'S RISKS AND RISK MITIGATION

As noted in Chapter II, inherent in the business of running an LDC are the risks of security of supply and the risk of price. These risks typically have an inverse relationship. Generally, the more secure the supply, the higher the price, and vice versa. For example, spot gas at a city gate may be extremely cheap during summer months, but it may be unavailable at any price during a peak winter day. Nevertheless, the consideration of any asset management relationship requires not only an assessment of how the fundamental risks of price and supply are affected but also an assessment of any new risks that arise from the asset manager/utility business arrangement.

As will be shown in this chapter, Woodward, serving as WKG's asset manager, actually decreases the degree of counter-party risk when compared to a third-party asset manager. This is particularly important in today's financial environment, given the difficulties of independent third-party marketers and asset managers.

A. Location of Competition

WKG initiated a program that integrated the two major components of any gas-supply function – the commodity itself and the transportation of that commodity to the city gate. In this program, Woodward, or any other similarly qualified asset manager, competes with other asset managers not only for the right to provide supply but also for the right to serve as agent and manager of WKG's pipeline and storage assets.

As noted in the Audit, WKG's frame of reference for bundled service occurs at its city gates. However, WKG disagrees with the Audit that the location of the competition for WKG is at WKG's city gates.⁷ Since WKG maintains title to the pipeline capacity assets, WKG believes that from the asset manager's perspective the benchmark results from a combination of the bulk-gas supply contracts and multiple delivery points located within a portfolio of transportation agreements. Its benchmark, therefore, would be an asset manager's portfolio of assets and the degree to which WKG's assets are leverage-able in that asset manager's mix of assets.

The value that WKG and its ratepayers receive from the asset management arrangement is not solely from Woodward's enhanced ability to purchase commodity based on WKG's requirements and to deliver the same commodity to WKG's city gate using just WKG's transportation agreements. Rather, it is based on Woodward's contribution through its ability to secure commodity with substantially greater receipt-point options than would be

⁷ Liberty Consulting Group Audit of Five Major Kentucky Gas Local Distribution Companies, dtd 11/22/02, pg III E.6.4

otherwise available to WKG on its own. For example, Woodward may take delivery of gas at a particular receipt point and back-haul it to WKG's city gate to deliver a lower total cost than otherwise would have been obtained by WKG using its own transportation arrangements.

In essence, the real competition is upstream of the city gate. WKG's transportation and storage assets are the same, regardless of the asset manager model or the historical gas-supply function. Therefore, the ability of an asset manager to compete is by virtue of its ability to leverage WKG's assets in its portfolio, resulting in a much greater number of pipeline receipt-point options

The number of competitors who can *successfully* combine the commodity with the ability to manage transportation and storage *and* deliver substantial savings to WKG may be less than the number of suppliers, however, it is certainly greater than in the past, when WKG was in essence its own asset manager and purchased commodity at very specific and unique pipeline delivery points for its accounts only

In summary, the asset management model has greater liquidity than WKG's historical gas-supply function. This increased liquidity is due exclusively to the greater number of available receipt points and storage options, which increase the number of potential players and result in greater competition upstream of the city gate.

B. Principal Risks and Risk Mitigation

The Audit identified two risks associated with the previously described asset manager/utility business arrangement.⁸

- Counter-party risks
- Failure to supply

Counter-Party Risks

The risk that Woodward, or any asset manager, would fail to perform per the terms and conditions of the business arrangement is similar to contract performance of any third-party service provider, e.g., service disruption. Paramount to the choice of an asset manager is WKG's confidence that the asset manager has the ability to perform and will perform in delivering gas to WKG's city gate regardless of the condition of the marketplace.

⁸ Liberty Consulting Group Audit of Five Major Kentucky Gas Local Distribution Companies, dtd 11/22/02, pg III.E 6.4

An example of WKG's assessment of a service provider's ability to perform is found in its relationship with Reliant Energy Services. In 1998, Reliant, by all accounts a reliable gas marketer, was low bidder for WKG's asset management and was awarded a 36-month contract. Thirteen months into the original contract, Reliant claimed to be losing money, did not foresee an improvement in its ability to perform, and wanted to buy out of the remaining term. Rather than force Reliant into non-performance and risk a disruption to supply, WKG, with Commission approval, seamlessly replaced Reliant with Woodward, the second lowest bidder for the original asset manager contract, for the remaining term.

The benefit delivered by the asset management model must, of course, offset the risk of non-performance by that asset manager. Consequently, WKG's criteria for selecting future asset managers are as follows

- ***Ensure alignment of business interests and costs to exit.*** Woodward, as an Atmos affiliate, has the same risk-adjusted profit-maximizing goal as does WKG and the other Atmos utilities. Woodward, unlike Reliant or Enron, cannot just "cut and run." Woodward's actions affect not only its agreements with other LDCs and municipalities but also impact the entire Atmos corporate image and profitability. In contrast, as noted above, Reliant's profit-maximizing business interests were clearly different and distinct from those of WKG/Atmos. Reliant would be expected to take actions in its own interest, rather than that of Atmos/WKG. On the other hand, as part of a portfolio of Atmos businesses, Woodward would be expected to behave in a manner that would reduce overall business risks to Atmos while also maximizing benefits. For this very reason, an affiliated service provider, in seeking lower risk, may or may not be the absolute lowest cost provider of service. For the reasons outlined above, an unaffiliated service provider may indeed tolerate higher levels of risk to increase benefits, recognizing that its exit costs are minimal (as in the Reliant case) or at least lower than those of an affiliate.
- ***Achieve alignment of agent compensation.*** As noted above, Woodward's compensation rests on its ability to meet WKG's requirements without incurring undue risks that may result in supply interruptions. As an Atmos subsidiary, Woodward would not benefit from seeking earnings to the detriment of WKG, i.e., "robbing Peter to pay Paul."
- ***Ensure credit worthiness.*** The credit worthiness of an asset manager is one indicator of the market's evaluation of the business risks assumed by the asset manager. Woodward recently obtained an increased credit line from \$85 million to \$210 million to ensure necessary financial liquidity in its trading operations. An absence of liquidity, for example, increased Reliant's

cost of capital, potentially forcing it to assume greater levels of risk to yield the same benefits.

- **Monitor performance.** Although Woodward has the obligation to satisfy WKG's gas requirements, WKG monitors Woodward's other actions as well, including nominations, storage operations, deliveries, etc., so as to be able, among other things, to foresee any potential operating problems and avoid surprises. If Woodward appears to be short, WKG engages Woodward to review the strategies to close the supply gap, such as hedges, free-flowing gas elsewhere, etc
- **Maintain substitutability.** Under conditions of non-performance that may contribute to a disruption of supply, WKG must be able to replace seamlessly the asset manager and/or repatriate the gas-supply function in-house. Regardless of where competition for service is truly occurring (upstream or at the city gate), in the worst case scenario, if Woodward were to default, WKG and Atmos/WKG centralized gas could resume their historical role in managing transportation and storage assets and securing gas supplies. In the short run, this worst-case scenario would result in higher gas prices for a short period of time.
- **Realize operations of scope and scale.** To be successful, an asset manager must have assets and a client base sufficient to create economies of scope and scale. Woodward secures, under its own name, the gas supply required by WKG's sales-service customers (as well as for customers in similar arrangements in Kansas, Missouri, Louisiana, Tennessee, Virginia, and Georgia), including quantities injected into WKG storage. Woodward also directly owns gas storage facilities.
- **Determine track record and reputation.** Past performance and reputation directly affect the asset management relationship. Experienced staff and astute business skills are required to deliver the expected benefits. Woodward continues its leading position in the domestic gas marketing and trading business. It has consistently been ranked as one of the industries best in customer service, and its reputation has ensured long and continuing relationships with its customers.

Failure to Supply

Closely related to counter-party risks is the potential failure to meet WKG's supply requirements. Although Woodward manages WKG's transportation and storage assets, as noted previously, WKG still owns these assets. The Audit states that WKG's ability to

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access its pipeline capacity in the event of a failure is critical.⁹ WKG agrees with this recommendation but points out that all capacity re-lease is recallable, and therefore, WKG's ability to access its pipeline capacity is not affected in the event of a default. The Audit also states that gas in storage for winter-period delivery to an LDC could be seized by one of the supplier's creditors in response to a failure elsewhere. Because WKG has title to the gas injected into storage on its behalf, a claim by a Woodward creditor would not be enforceable.

The risk of supplier failure at a pipeline receipt point under an asset manager arrangement is as low as or lower than the risk of supplier failure if WKG were to secure supplies directly. Woodward maintains master agreements with a portfolio of large, reputable gas suppliers from which it makes monthly purchases. A default of supplier delivery at a pipeline receipt point is a disappointment but not a catastrophe. The ease with which a supplier is replaced is subject to market conditions; however, the liquidity at the portfolio of pipeline receipt points managed by Woodward is greater due to the increased number of supplier options and thus reduces risk of supplier disruption.

The risk of Woodward's failure to supply gas at WKG's city gate is very low, but non-performance is possible if Woodward were to buy insufficient gas supplies and over commit assets. WKG mitigates these potential risks by monitoring nominations to ensure that Woodward will meet WKG's requirements. Therefore, a potential Woodward failure at the city gate would be identified in advance. In the unlikely event that Woodward does default at the city gate, WKG could respond, as in the counter-party risk section above, by obtaining its own gas supplies and utilizing its own transportation and storage assets to move the gas to the city gate.

⁹ Liberty Consulting Group Audit of Five Major Kentucky Gas Local Distribution Companies, dtd 11/22/02, pg III.E.6 4

V. SUMMARY

Inherent in the business of running an LDC are the risks of security of supply and of price fluctuation. Any asset management relationship requires not only an assessment of how the fundamental risks of price and supply are affected but also an assessment of any new risks that arise from the asset manager/utility business arrangement itself. This report attempted to describe those risks and the steps WKG has taken to mitigate them.

WKG agrees that some counter-party and supply risks are introduced as a result of the asset management model, but not to the extent as described in the Audit. WKG also believes that it has risk mitigation processes and capabilities in place to minimize these risks and/or reduce their potential impact.

In many ways, the risks associated with the asset management model are less than WKG's historical way of securing supplies; for instance, Woodward has substantially more supply and pipeline receipt points than does WKG. This increased liquidity of supply options reduces the risk of supply interruptions.

Additionally, Woodward, serving as WKG's asset manager, actually decreases the degree of counter-party risks when compared to a third-party asset manager. Due to the alignment of shared goals and responsibilities, Woodward's risk profile mirrors the parent corporation's and, in turn, WKG's. This is particularly important in today's financial environment, given the difficulties of independent third-party marketers and asset managers.

Counter-party and failure-to-supply risks are well understood and have been determined to be manageable. WKG has processes in place to mitigate their occurrence and/or their impact. Table 1 summarizes these risks and mitigating factors.

Finally, WKG initiated an asset management program in direct response to the PBR program to seek innovative solutions to reducing gas costs to the consumer. To accomplish that goal, WKG integrated the two major components of any gas-supply function – the commodity itself and the transportation of that commodity to the city gate in order to leverage its transportation and storage assets in new and innovative ways. For this program, Woodward not only provides supply but also serves as agent and manager of WKG's pipeline and storage assets. As a result of this initiative, the asset management program has delivered significant benefits to the Kentucky ratepayer and to WKG.

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Table 1

Category	Issue	Mitigating Action
Counter-party risk (Woodward default)	<ul style="list-style-type: none">▪ Pipeline capacity not available to WKG▪ Gas storage seized by asset manager creditor▪ Long-term disruption to supply	<ul style="list-style-type: none">▪ All capacity release is recallable; therefore, capacity will always be available to WKG▪ WKG holds title to all gas in storage: therefore, WKG gas cannot be seized by asset manager creditor▪ Replace Woodward with other Asset Manager, or▪ Repatriate gas supply function "in-house"
Failure to supply (WKG requirements not met)	<ul style="list-style-type: none">▪ Short-term disruption to supply	<ul style="list-style-type: none">▪ WKG monitors nominations, storage balancing, hedges, swaps, etc , used by Woodward to meet requirements so as to anticipate a potential problem before it becomes one.▪ WKG secures flowing gas with delivery to cover the gap.